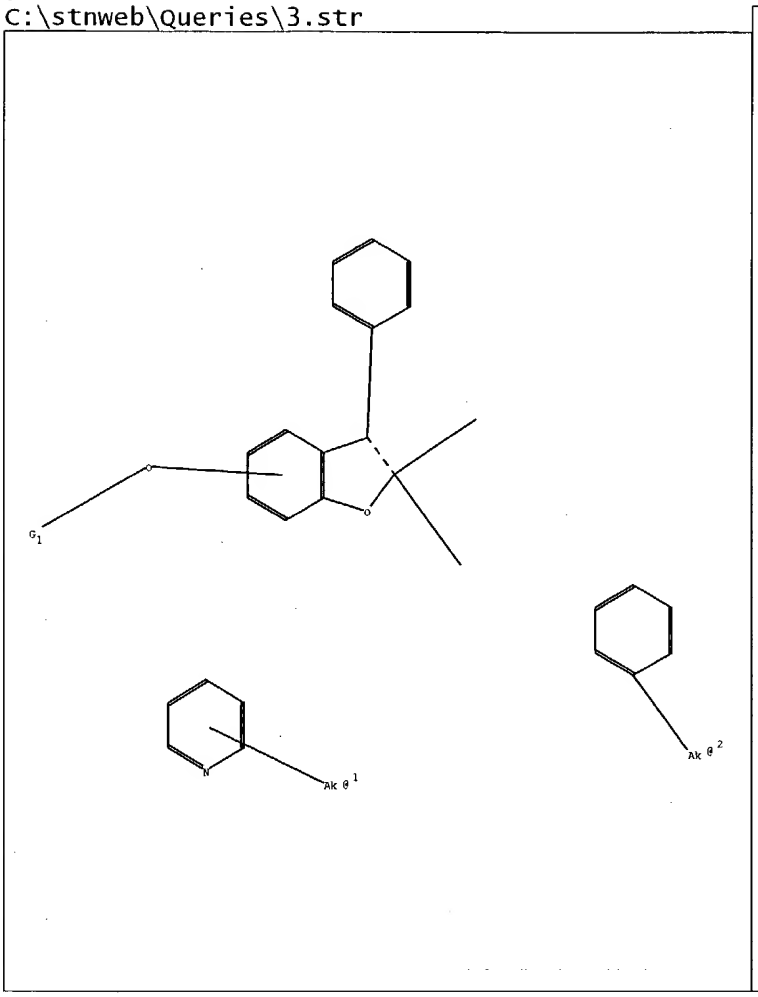
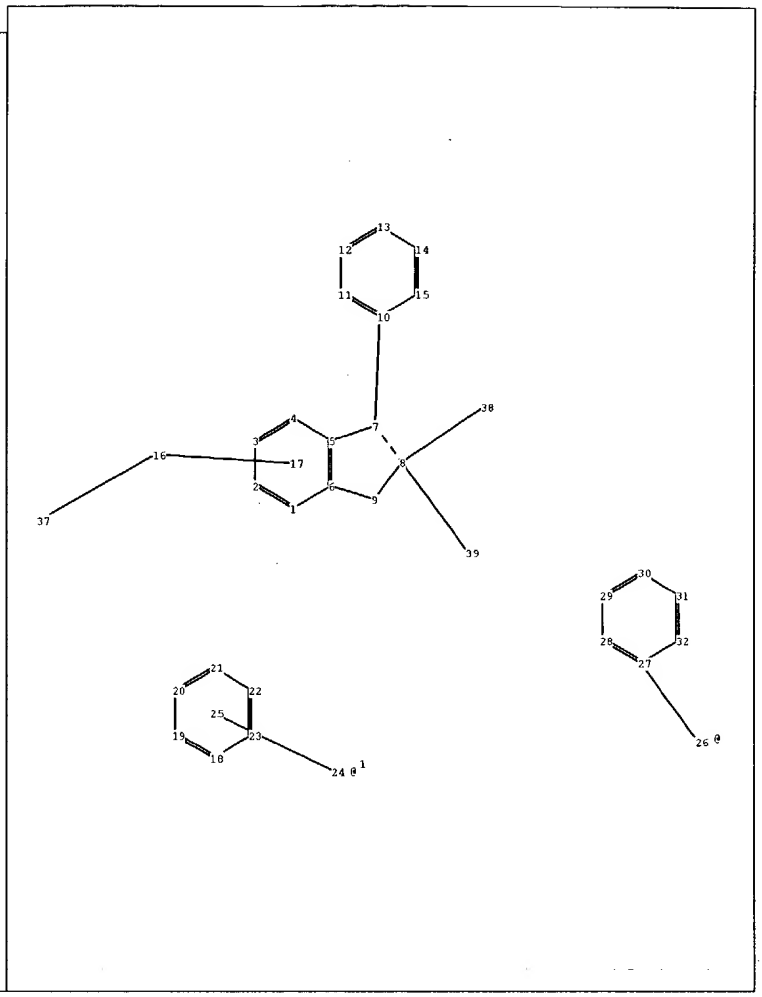
C:\stnweb\Queries\3.str





chain nodes :
16 24 26 37
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 18 19 20 21 22 23 27 28 29 30
31 32
ring/chain nodes :
38 39
chain bonds :
7-10 16-37 26-27
ring/chain bonds :
8-38 8-39
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 10-11 10-15 11-12 12-13 13-14
14-15 18-19 18-23 19-20 20-21 21-22 22-23 27-28 27-32 28-29 29-30 30-31 31-32
exact/norm bonds :
7-8 8-38 8-39 16-37 26-27
exact bonds :
5-7 6-9 7-10 8-9
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 10-11 10-15 11-12 12-13 13-14 14-15 18-19 18-23
19-20 20-21 21-22 22-23 27-28 27-32 28-29 29-30 30-31 31-32
isolated ring systems :
containing 1 : 10 : 18 : 27 :

G1:[*1],[*2]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:CLASS 17:CLASS 18:Atom 19:Atom 20:Atom
21:Atom 22:Atom 23:Atom 24:CLASS 25:CLASS 26:CLASS 27:Atom 28:Atom 29:Atom
30:Atom 31:Atom 32:Atom 37:CLASS 38:CLASS 39:CLASS

```
* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

NEWS  1              Web Page URLs for STN Seminar Schedule - N. America
NEWS  2              "Ask CAS" for self-help around the clock
NEWS  3  SEP 01      New pricing for the Save Answers for SciFinder Wizard within
                     STN Express with Discover!
NEWS  4  OCT 28      KOREAPAT now available on STN
NEWS  5  NOV 18      Current-awareness alerts, saved answer sets, and current
                     search transcripts to be affected by CERAB, COMPUAB, ELCOM,
                     and SOLIDSTATE reloads
NEWS  6  NOV 30      PHAR reloaded with additional data
NEWS  7  DEC 01      LISA now available on STN
NEWS  8  DEC 09      12 databases to be removed from STN on December 31, 2004
NEWS  9  DEC 15      MEDLINE update schedule for December 2004

NEWS EXPRESS  OCTOBER 29 CURRENT WINDOWS VERSION IS V7.01A, CURRENT
              MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
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NEWS INTER    General Internet Information
NEWS LOGIN    Welcome Banner and News Items
NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
NEWS WWW      CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 12:56:20 ON 16 DEC 2004

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                    0.21       0.21

FILE 'REGISTRY' ENTERED AT 12:56:26 ON 16 DEC 2004
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provided by InfoChem.

STRUCTURE FILE UPDATES:   14 DEC 2004  HIGHEST RN 797749-23-6
DICTIONARY FILE UPDATES:  14 DEC 2004  HIGHEST RN 797749-23-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.
```

h eb c g cg b cg eb

```
Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
L1      STRUCTURE UPLOADED

=>  l1
L1 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l1
SAMPLE SEARCH INITIATED 12:59:47 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     44 TO ITERATE

100.0% PROCESSED      44 ITERATIONS                              1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          483 TO     1277
PROJECTED ANSWERS:               1 TO       80

L2            1 SEA SSS SAM L1

=> s l1 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 12:59:51 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    904 TO ITERATE

100.0% PROCESSED     904 ITERATIONS                             24 ANSWERS
SEARCH TIME: 00.00.01

L3           24 SEA SSS FUL L1

=> file hcaplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                              157.52     157.73

FILE 'HCAPLUS' ENTERED AT 12:59:53 ON 16 DEC 2004
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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h ebc gcg b cg eb

FILE COVERS 1907 - 16 Dec 2004 VOL 141 ISS 25
FILE LAST UPDATED: 15 Dec 2004 (20041215/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3
L4 4 L3

=> d l4, ibib abs hitstr, 1-4

L4 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Stars References

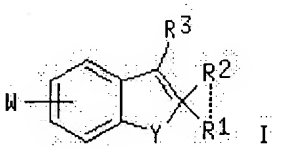
ACCESSION NUMBER: 2003:719300 HCAPLUS
DOCUMENT NUMBER: 139:240389
TITLE: Antidepressant
INVENTOR(S): Ohkawa, Shigenori; Miyamoto, Masaomi
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003074046	A1	20030912	WO 2003-JP2293	20030228
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2004083556	A2	20040318	JP 2003-52503	20030228
EP 1481679	A1	20041201	EP 2003-707169	20030228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

PRIORITY APPLN. INFO.:

JP 2002-55771	A	20020301
JP 2002-195434	A	20020704
WO 2003-JP2293	W	20030228

OTHER SOURCE(S): MARPAT 139:240389
GI



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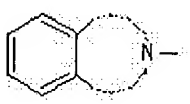


II

AB A PKB (Akt) activator contg. a compd. represented by the formula (I) [wherein R1 and R2 each represents hydrogen, a hydrocarbon group, or a

h eb c g cg b cg eb

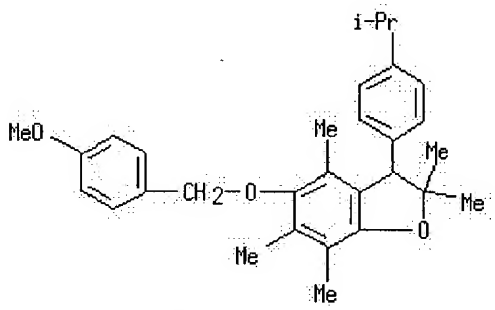
heterocyclic group or R1 and R2 form a ring in cooperation with the adjacent carbon atom; R3 represents hydrogen, a hydrocarbon group, or a heterocyclic group; W represents a group represented by the formula (II) (-N(R4)(R5)) or (-XR4c) (wherein ring A represents an optionally substituted benzene ring; ring B represents an optionally substituted 5- to 7-membered nitrogenous heterocycle; R4 represents either an arom.-group-substituted aliph. hydrocarbon group which may have other substituent(s) or an acyl contg. an arom. group; R5 represents hydrogen, C1-6 alkyl, or acyl; R4c represents an arom. group, aliph. hydrocarbon group, or acyl; and X represents oxygen or sulfur); Y represents oxygen, sulfur, or NH; and ring C represents an optionally substituted benzene ring], a salt of the compd., or a prodrug of either. Also provided is a use of the activator in or as a preventive/therapeutic agent for depressive psychoses, anxiety disorders, affective psychoses, or PTSD.

IT **216989-18-3**

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(benzofuran analogs as protein kinase B activators and antidepressants)

RN 216989-18-3 HCAPLUS

CN Benzofuran, 2,3-dihydro-5-[(4-methoxyphenyl)methoxy]-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2002:275980 HCAPLUS
DOCUMENT NUMBER: 136:309840
TITLE: Preparation of heterocyclic compounds as promoters for the proliferation and differentiation of stem cells and neuron precursor cells
INVENTOR(S): Okawa, Shigenori; Miyamoto, Masaomi; Okura, Masahiro
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 182 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002028850	A1	20020411	WO 2001-JP8739	20011004

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT,

h eb c g cg b cg eb

RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2001092350	A5	20020415	AU 2001-92350		20011004
JP 2002348239	A2	20021204	JP 2001-308530		20011004
CA 2424870	AA	20030404	CA 2001-2424870		20011004
EP 1323716	A1	20030702	EP 2001-972687		20011004
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
US 2004034049	A1	20040219	US 2003-398278		20030401
PRIORITY APPLN. INFO.:			JP 2000-306801	A	20001005
			WO 2001-JP8739	W	20011004

OTHER SOURCE(S): MARPAT 136:309840
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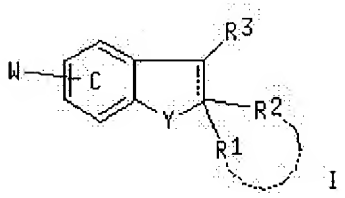

I

AB The title compds. I [R1 and R2 are each H, a hydrocarbon group, a heterocyclic group, or R1 and R2 together with the carbon atom adjacent thereto may form a ring; R3 is H, a hydrocarbon group, or a heterocyclic group; W is R4R5N, etc.; R4 is acyl which is substituted with an arom. group and addnl. bears an optionally substituted aliph. hydrocarbon group or an arom. group; R5 is H, C1-6 alkyl, or acyl; Y is O, S, or NH; and ring C is an optionally substituted benzene ring] are prepd. Three compds. of this invention at 1 μM gave 344% to 478% promotion of neuron generation. Formulations are given.

IT **216989-15-0P 216989-16-1P 216989-18-3P**
216989-19-4P 216989-20-7P 216989-21-8P
216989-22-9P 216989-23-0P 216989-24-1P
216989-25-2P 216989-28-5P 216989-29-6P
216989-30-9P 216989-38-7P 216989-39-8P
216989-43-4P 216989-44-5P 216989-46-7P
409366-59-2P 409366-61-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of heterocyclic compds. as promoters for proliferation and differentiation of stem cells and neuron precursor cells)

RN 216989-15-0 HCAPLUS
CN Benzofuran, 2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-(phenylmethoxy)- (9CI) (CA INDEX NAME)

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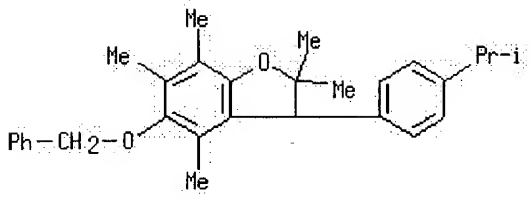
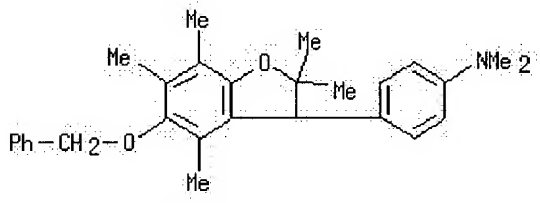
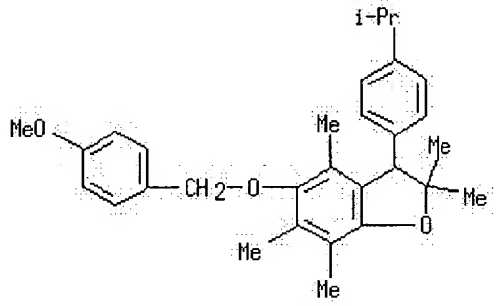


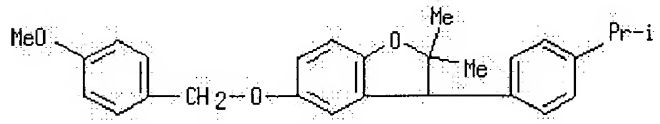
RN 216989-16-1 HCAPLUS
CN Benzenamine, 4-[2,3-dihydro-2,2,4,6,7-pentamethyl-5-(phenylmethoxy)-3-benzofuranyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



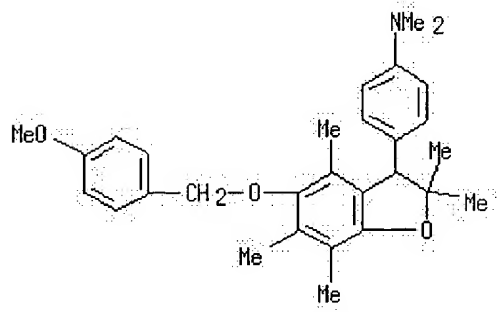
RN 216989-18-3 HCAPLUS
CN Benzofuran, 2,3-dihydro-5-[(4-methoxyphenyl)methoxy]-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 216989-19-4 HCAPLUS
CN Benzofuran, 2,3-dihydro-5-[(4-methoxyphenyl)methoxy]-2,2-dimethyl-3-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)



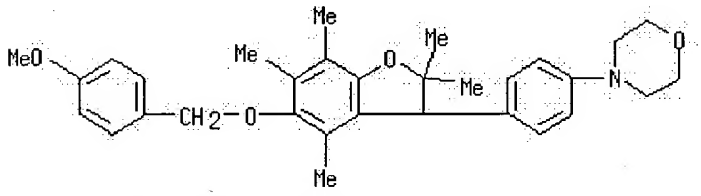
RN 216989-20-7 HCAPLUS
CN Benzenamine, 4-[2,3-dihydro-5-[(4-methoxyphenyl)methoxy]-2,2,4,6,7-pentamethyl-3-benzofuranyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



RN 216989-21-8 HCAPLUS

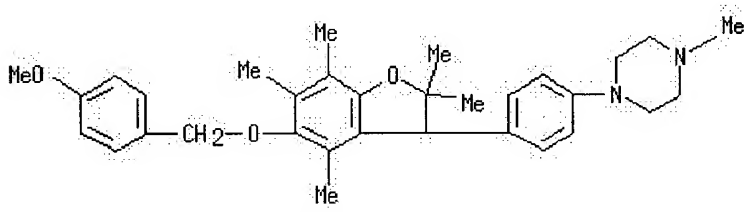
h eb c g cg b cg eb

CN Morpholine, 4-[4-[2,3-dihydro-5-[(4-methoxyphenyl)methoxy]-2,2,4,6,7-pentamethyl-3-benzofuranyl]phenyl]- (9CI) (CA INDEX NAME)



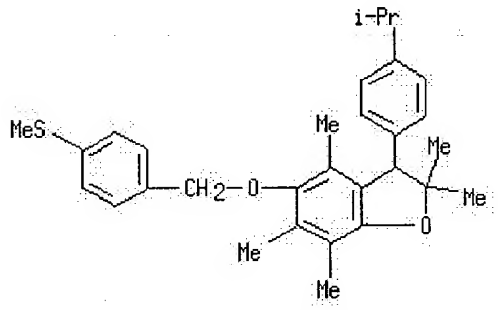
RN 216989-22-9 HCAPLUS

CN Piperazine, 1-[4-[2,3-dihydro-5-[(4-methoxyphenyl)methoxy]-2,2,4,6,7-pentamethyl-3-benzofuranyl]phenyl]-4-methyl- (9CI) (CA INDEX NAME)



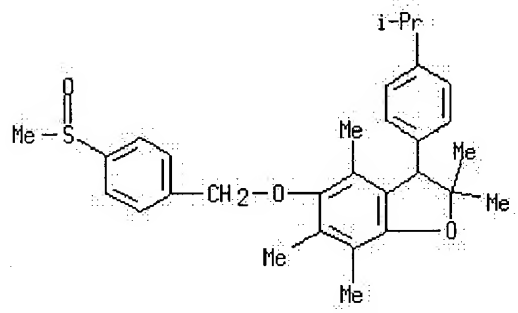
RN 216989-23-0 HCAPLUS

CN Benzofuran, 2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-[[4-(methylthio)phenyl]methoxy]- (9CI) (CA INDEX NAME)



RN 216989-24-1 HCAPLUS

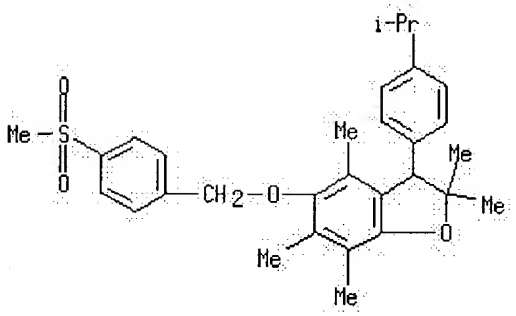
CN Benzofuran, 2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-[[4-(methylsulfinyl)phenyl]methoxy]- (9CI) (CA INDEX NAME)



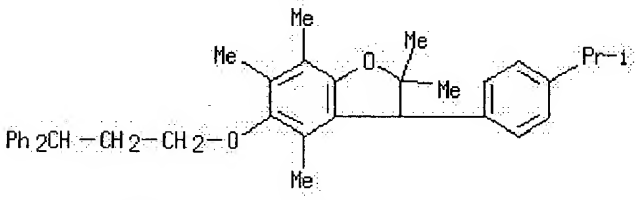
RN 216989-25-2 HCAPLUS

CN Benzofuran, 2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-[[4-(methylsulfonyl)phenyl]methoxy]- (9CI) (CA INDEX NAME)

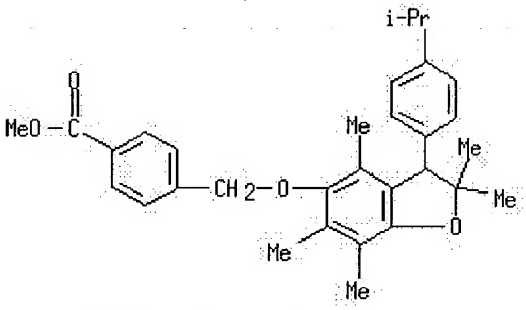
h eb c g cg b cg eb



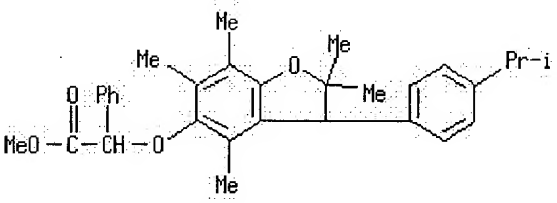
RN 216989-28-5 HCAPLUS
CN Benzofuran, 5-(3,3-diphenylpropoxy)-2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 216989-29-6 HCAPLUS
CN Benzoic acid, 4-[[[2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-benzofuranyl]oxy]methyl]-, methyl ester (9CI) (CA INDEX NAME)

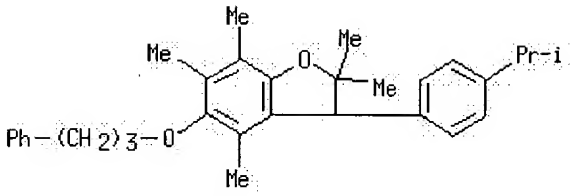


RN 216989-30-9 HCAPLUS
CN Benzeneacetic acid, α-[[2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-benzofuranyl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 216989-38-7 HCAPLUS
CN Benzofuran, 2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-(3-phenylpropoxy)- (9CI) (CA INDEX NAME)

h eb c g cg b cg eb



RN 216989-39-8 HCAPLUS
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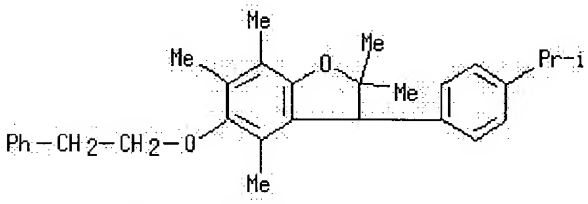
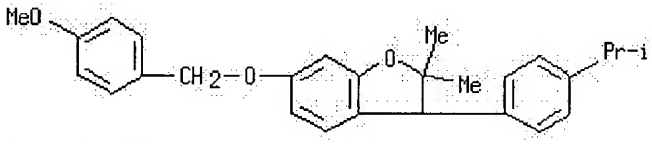
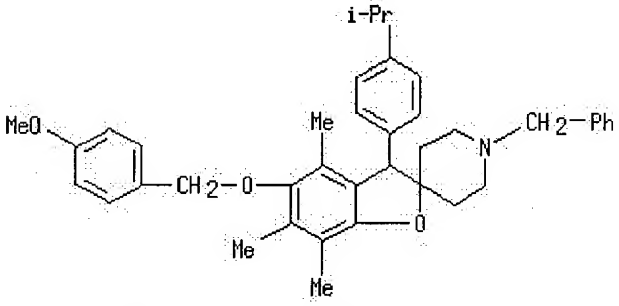


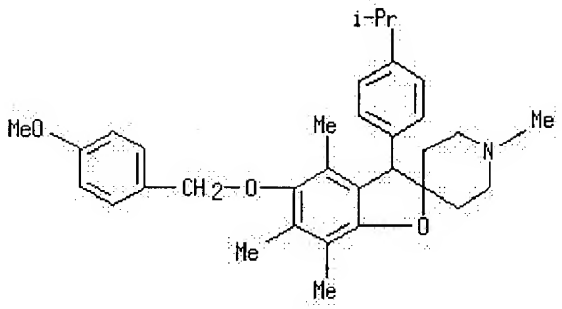
RN 216989-43-4 HCAPLUS
CN Benzofuran, 2,3-dihydro-6-[(4-methoxyphenyl)methoxy]-2,2-dimethyl-3-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 216989-44-5 HCAPLUS
CN Spiro[benzofuran-2(3H),4'-piperidine], 5-[(4-methoxyphenyl)methoxy]-4,6,7-trimethyl-3-[4-(1-methylethyl)phenyl]-1'-(phenylmethyl)- (9CI) (CA INDEX NAME)

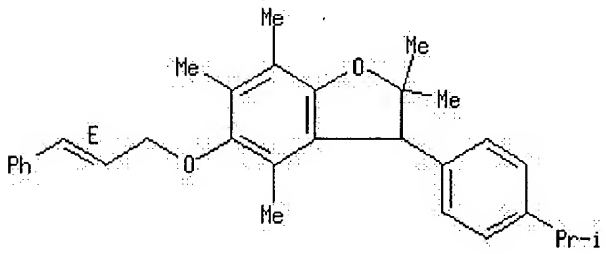


RN 216989-46-7 HCAPLUS
CN Spiro[benzofuran-2(3H),4'-piperidine], 5-[(4-methoxyphenyl)methoxy]-1',4,6,7-tetramethyl-3-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)

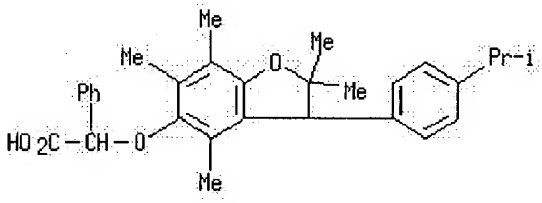


RN 409366-59-2 HCAPLUS
CN Benzofuran, 2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-[[(2E)-3-phenyl-2-propenyl]oxy]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 409366-61-6 HCAPLUS
CN Benzeneacetic acid, α-[[2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-benzofuranyl]oxy]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1998:806634 HCAPLUS
DOCUMENT NUMBER: 130:38285
TITLE: Benzofuran derivatives useful for suppressing neurodegeneration.
INVENTOR(S): Ohkawa, Shigenori; Setoh, Masaki; Kakihana, Mitsuru; Okura, Masahiro
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9855454	A2	19981210	WO 1998-JP2482	19980604

h eb c g cg b cg eb

WO 9855454 A3 19990304
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
AU 9875503 A1 19981221 AU 1998-75503 19980604
JP 11049765 A2 19990223 JP 1998-155709 19980604
EP 988289 A2 20000329 EP 1998-923128 19980604
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
PRIORITY APPLN. INFO.: JP 1997-148325 A 19970605
WO 1998-JP2482 W 19980604
OTHER SOURCE(S): MARPAT 130:38285
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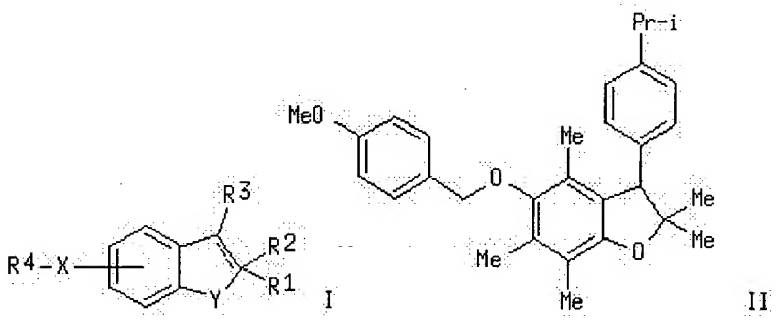
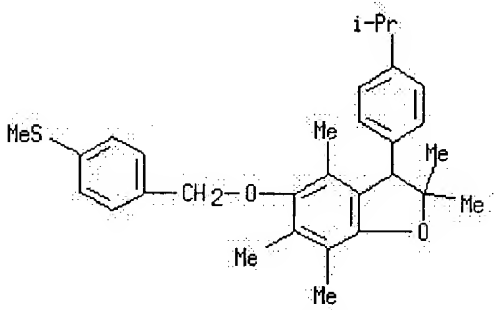


AB Title compds. I [R1, R2 = H, (un)substituted hydrocarbon group; or R1 and R2 form a 3- to 8-membered carbo- or heterocyclic ring which may be substituted; R3 = H, (un)substituted lower alkyl or arom. group; R4 = (un)substituted arom. or araliph. group, or acyl; X , Y = O or S which may be oxidized; benzene ring may be further substituted] and their salts are disclosed. The compds. suppress β-amyloid toxicity, and are thus useful as agents for treating of preventing neurodegenerative diseases such as Alzheimer's disease or Parkinsonism. Preps. of 33 compds. I and their intermediates are described. For instance, etherification of 3-(4-isopropylphenyl)-2,2,4,6,7-pentamethyl-2,3-dihydrobenzofuran-5-ol with 4-methoxybenzyl chloride using NaH in DMF gave 49% title compd. II. Seven example compds. gave 27.3-47.0% in vitro protection of human neuroblastoma SK-N-SH cells from β-amyloid neurotoxicity.

IT **216989-23-0P**, 3-(4-Isopropylphenyl)-2,2,4,6,7-pentamethyl-5-[[4-(methylthio)benzyl]oxy]-2,3-dihydrobenzofuran **216989-24-1P**, 3-(4-Isopropylphenyl)-2,2,4,6,7-pentamethyl-5-[[4-(methylsulfinyl)benzyl]oxy]-2,3-dihydrobenzofuran **216989-26-3P**, 3-(4-Isopropylphenyl)-2,2,4,6,7-pentamethyl-5-[(3-phenyl-2-propen-1-yl)oxy]-2,3-dihydrobenzofuran **216989-30-9P**, Methyl α-[[3-(4-isopropylphenyl)-2,2,4,6,7-pentamethyl-2,3-dihydrobenzofuran-5-yl]oxy]phenylacetate
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(product; prepn. of benzofuran derivs. as agents for suppressing neurodegeneration)

h eb c g cg b cg eb

RN 216989-23-0 HCAPLUS
CN Benzofuran, 2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-[[4-(methylthio)phenyl]methoxy]- (9CI) (CA INDEX NAME)



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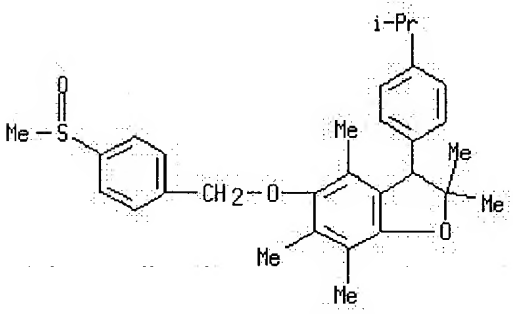
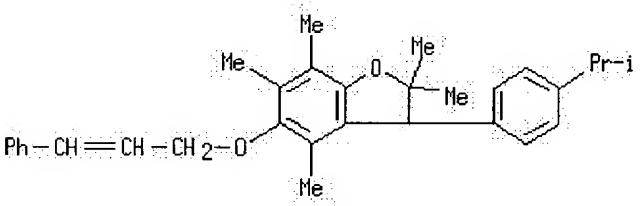
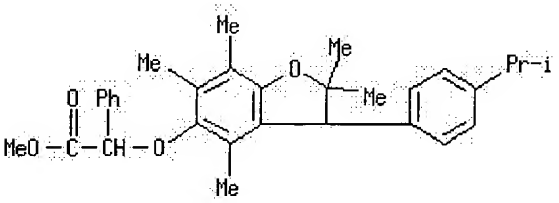


RN 216989-26-3 HCAPLUS
CN Benzofuran, 2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-[(3-phenyl-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



RN 216989-30-9 HCAPLUS
CN Benzeneacetic acid, α-[[2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-benzofuranyl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

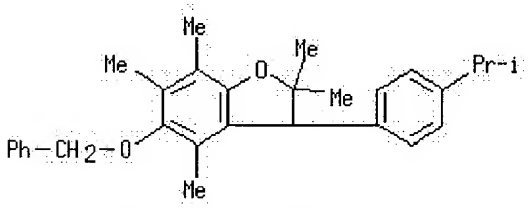


IT **216989-15-0P**, 5-(Benzyloxy)-3-(4-isopropylphenyl)-2,2,4,6,7-pentamethyl-2,3-dihydrobenzofuran **216989-16-1P**, 5-(Benzyloxy)-3-[4-(dimethylamino)phenyl]-2,2,4,6,7-pentamethyl-2,3-dihydrobenzofuran **216989-18-3P**, 3-(4-Isopropylphenyl)-5-[(4-

h eb c g cg b cg eb

methoxybenzyl)oxy]-2,2,4,6,7-pentamethyl-2,3-dihydrobenzofuran **216989-19-4P**, 3-(4-Isopropylphenyl)-5-[(4-methoxybenzyl)oxy]-2,2-dimethyl-2,3-dihydrobenzofuran **216989-20-7P**, 3-[4-(Dimethylamino)phenyl]-5-[(4-methoxybenzyl)oxy]-2,2,4,6,7-pentamethyl-2,3-dihydrobenzofuran **216989-21-8P**, 5-[(4-Methoxybenzyl)oxy]-3-[4-(4-morpholinyl)phenyl]-2,2,4,6,7-pentamethyl-2,3-dihydrobenzofuran **216989-22-9P**, 5-[(4-Methoxybenzyl)oxy]-2,2,4,6,7-pentamethyl-3-[4-(4-methyl-1-piperazinyl)phenyl]-2,3-dihydrobenzofuran **216989-25-2P**, 3-(4-Isopropylphenyl)-2,2,4,6,7-pentamethyl-5-[[4-(methylsulfonyl)benzyl]oxy]-2,3-dihydrobenzofuran **216989-28-5P**, 5-[(3,3-Diphenylpropyl)oxy]-3-(4-isopropylphenyl)-2,2,4,6,7-pentamethyl-2,3-dihydrobenzofuran **216989-29-6P**, Methyl 4-[[[3-(4-isopropylphenyl)-2,2,4,6,7-pentamethyl-2,3-dihydrobenzofuran-5-yl]oxy]methyl]benzoate **216989-36-5P** **216989-37-6P** **216989-38-7P**, 3-(4-Isopropylphenyl)-2,2,4,6,7-pentamethyl-5-[(3-phenylpropyl)oxy]-2,3-dihydrobenzofuran **216989-39-8P**, 3-(4-Isopropylphenyl)-2,2,4,6,7-pentamethyl-5-[(2-phenylethyl)oxy]-2,3-dihydrobenzofuran **216989-43-4P**, 3-(4-Isopropylphenyl)-6-[(4-methoxybenzyl)oxy]-2,2-dimethyl-2,3-dihydrobenzofuran **216989-44-5P**, 1'-Benzyl-3-(4-isopropylphenyl)-5-[(4-methoxybenzyl)oxy]-4,6,7-trimethylspiro[benzofuran-2(3H),4'-piperidine] **216989-46-7P**, 3-(4-Isopropylphenyl)-5-[(4-methoxybenzyl)oxy]-1',4,6,7-tetramethylspiro[benzofuran-2(3H),4'-piperidine]
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(product; prepn. of benzofuran derivs. as agents for suppressing neurodegeneration)

RN 216989-15-0 HCAPLUS
CN Benzofuran, 2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-(phenylmethoxy)- (9CI) (CA INDEX NAME)



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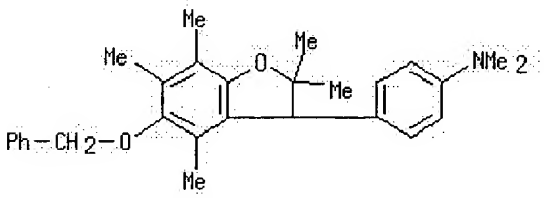
CN Benzenamine, 4-[2,3-dihydro-2,2,4,6,7-pentamethyl-5-(phenylmethoxy)-3-benzofuranyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



RN 216989-18-3 HCAPLUS
CN Benzofuran, 2,3-dihydro-5-[(4-methoxyphenyl)methoxy]-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)

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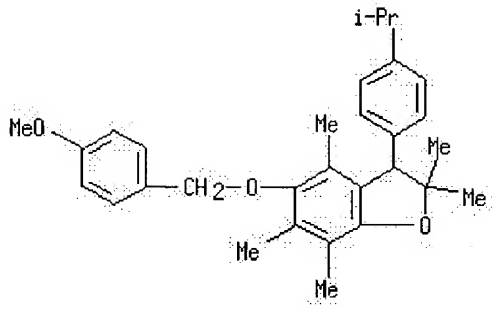

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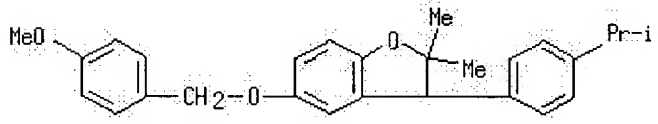
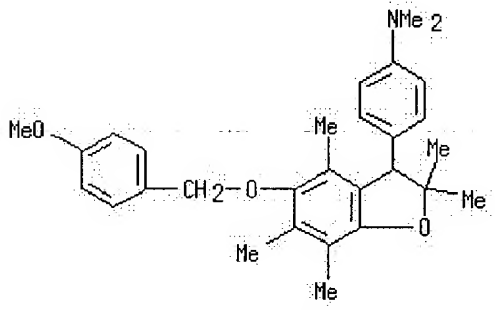
CN Benzofuran, 2,3-dihydro-5-[(4-methoxyphenyl)methoxy]-2,2-dimethyl-3-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 216989-20-7 HCAPLUS
CN Benzenamine, 4-[2,3-dihydro-5-[(4-methoxyphenyl)methoxy]-2,2,4,6,7-pentamethyl-3-benzofuranyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



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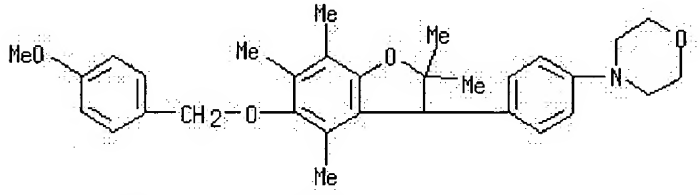
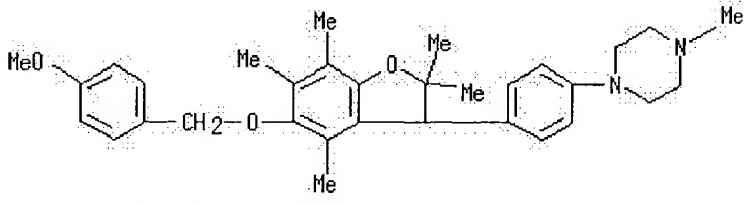
CN Morpholine, 4-[4-[2,3-dihydro-5-[(4-methoxyphenyl)methoxy]-2,2,4,6,7-pentamethyl-3-benzofuranyl]phenyl]- (9CI) (CA INDEX NAME)



RN 216989-22-9 HCAPLUS
CN Piperazine, 1-[4-[2,3-dihydro-5-[(4-methoxyphenyl)methoxy]-2,2,4,6,7-pentamethyl-3-benzofuranyl]phenyl]-4-methyl- (9CI) (CA INDEX NAME)



RN 216989-25-2 HCAPLUS

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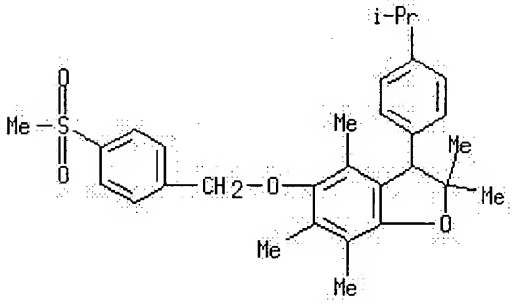
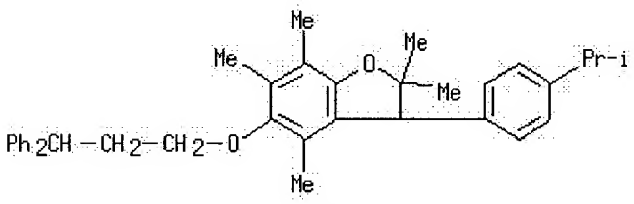
CN Benzofuran, 2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-[[4-(methylsulfonyl)phenyl]methoxy]- (9CI) (CA INDEX NAME)



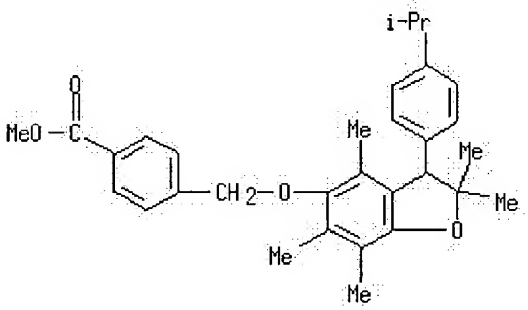
RN 216989-28-5 HCAPLUS

CN Benzofuran, 5-(3,3-diphenylpropoxy)-2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 216989-29-6 HCAPLUS

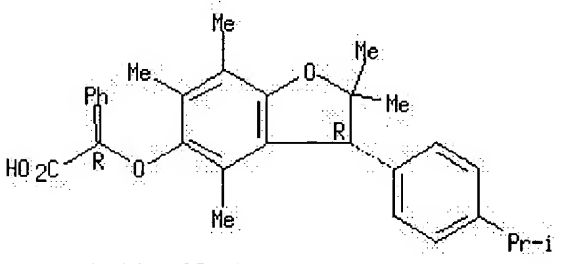
CN Benzoic acid, 4-[[[2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-benzofuranyl]oxy]methyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 216989-36-5 HCAPLUS

CN Benzeneacetic acid, α-[[(3R)-2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-benzofuranyl]oxy]-, (αR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 216989-37-6 HCAPLUS

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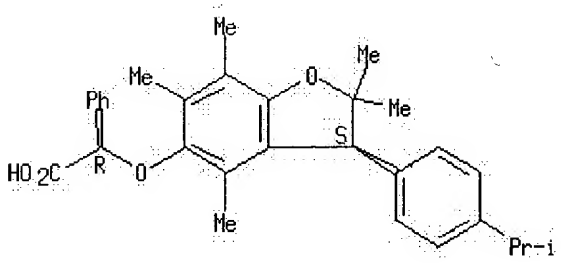
CN Benzeneacetic acid, α-[[(3R)-2,3-dihydro-2,2,4,6,7-pentamethyl-3-[4-(1-methylethyl)phenyl]-5-benzofuranyl]oxy]-, (αS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



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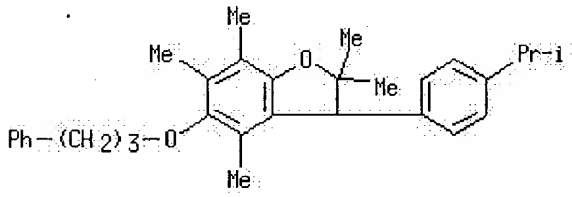

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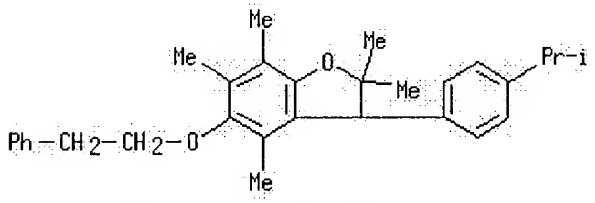

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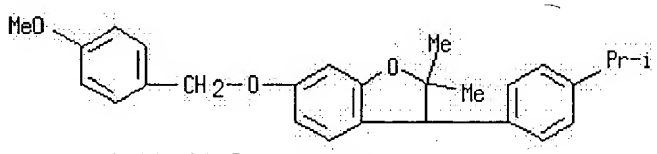

RN 216989-44-5 HCAPLUS
CN Spiro[benzofuran-2(3H),4'-piperidine], 5-[(4-methoxyphenyl)methoxy]-4,6,7-trimethyl-3-[4-(1-methylethyl)phenyl]-1'-(phenylmethyl)- (9CI) (CA INDEX NAME)

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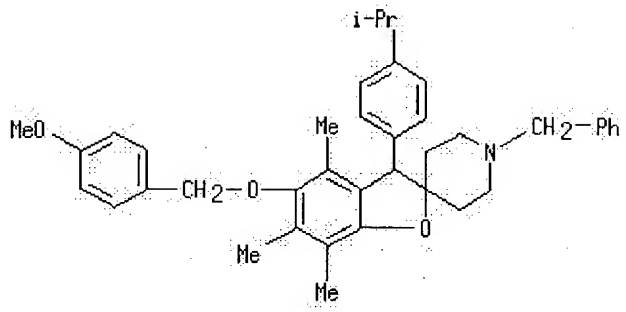
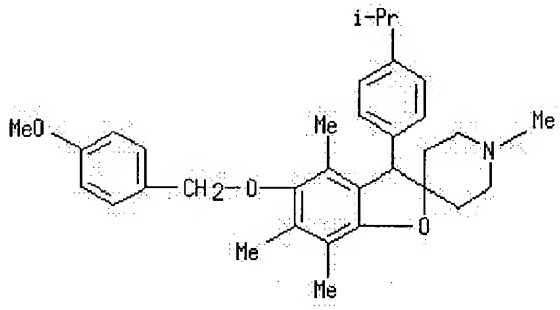


RN 216989-46-7 HCAPLUS
CN Spiro[benzofuran-2(3H),4'-piperidine], 5-[(4-methoxyphenyl)methoxy]-1',4,6,7-tetramethyl-3-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1988:549335 HCAPLUS
DOCUMENT NUMBER: 109:149335
TITLE: Preparation of 5-hydroxycoumaran derivatives as cardiovascular and antiallergy agents
INVENTOR(S): Terao, Shinji; Maki, Yoshitaka
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 39 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
EP 273647	A1	19880706	EP 1987-311122		19871217
EP 273647	B1	19920311			
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE					
JP 01272578	A2	19891031	JP 1987-310346		19871207
JP 08005871	B4	19960124			
AT 73448	E	19920315	AT 1987-311122		19871217
DK 8706789	A	19880628	DK 1987-6789		19871222
US 4857516	A	19890815	US 1987-136273		19871222
HU 48609	A2	19890628	HU 1987-5988		19871223
HU 206332	B	19921028			
AU 8783040	A1	19880630	AU 1987-83040		19871224
AU 605818	B2	19910124			
CA 1325635	A1	19931228	CA 1987-555354		19871224
PRIORITY APPLN. INFO.:			JP 1986-313380	A	19861227
			JP 1987-235491	A	19870918

h eb c g cg b cg eb

EP 1987-311122 A 19871217

OTHER SOURCE(S): CASREACT 109:149335; MARPAT 109:149335

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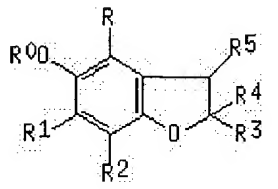

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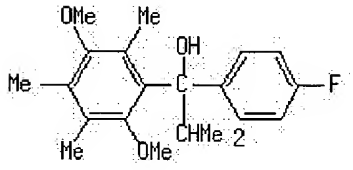

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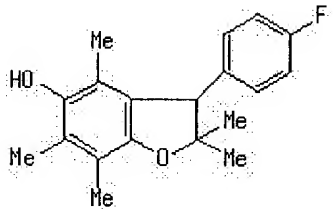


III

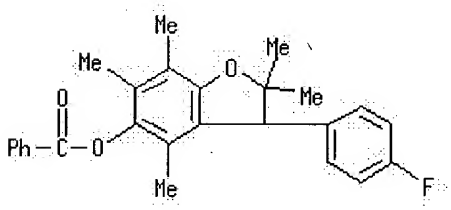
AB The title compds. [I; R = alkyl; R0 = H, acyl; R1-R4 = (un)substituted alkyl; R1R2 = CH:CHCH:CH; R3R4 = polymethylene; R5 = (un)substituted alkyl, aryl, heterocyclyl] were prepd. 4-FC6H4COCHMe2 (prepn. given) was added to 1-bromo-2,5-dimethoxy-3,4,6-trimethylbenzene in THF previously treated with BuLi and the mixt. stirred 1 h to give 92.3% diphenylpropanol II which was refluxed 18 h in 47 wt.% aq. HBr to give 74.8% title compd. III. The latter, at 100 mg/kg orally gave 93% inhibition of the excitatory behavior induced by spinal intrathecal injection of FeCl2 soln. in mice.

IT **116674-58-9P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as cardiovascular and antiallergic agent)

RN 116674-58-9 HCAPLUS

CN 5-Benzofuranol, 3-(4-fluorophenyl)-2,3-dihydro-2,2,4,6,7-pentamethyl-, benzoate (9CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	23.76	181.49

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-2.80	-2.80

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FILE COVERS 1907-1966
FILE LAST UPDATED:  01 May 1997 (19970501/UP)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.  Title keywords, authors, patent
  assignees, and patent information, e.g., patent numbers, are
  now searchable from 1907-1966.  TIFF images of CA abstracts
  printed between 1907-1966 are available in the PAGE
  display formats.

  This file supports REGlstRY for direct browsing and searching of
  all substance data from the REGISTRY file.  Enter HELP FIRST for
  more information.

=> d his

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L2           1 S L1
L3          24 S L1 FULL

     FILE 'HCAPLUS' ENTERED AT 12:59:53 ON 16 DEC 2004
L4           4 S L3

     FILE 'CAOLD' ENTERED AT 13:01:09 ON 16 DEC 2004

=> s l3
L5           0 L3

=> file medline, biosis, embase, caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.84     182.33

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -2.80

FILE 'MEDLINE' ENTERED AT 13:02:10 ON 16 DEC 2004

FILE 'BIOSIS' ENTERED AT 13:02:10 ON 16 DEC 2004
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=> s ohkawa, s?au
'?' TRUNCATION SYMBOL NOT VALID WITHIN 'S?AU'
The truncation symbol ?  may be used only at the end of a search
term.  To specify a variable character within a word use '!', e.g.,
'wom!n' to search for both 'woman' and 'women'.  Enter "HELP
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h eb c g cg b cg eb

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TRUNCATION" at an arrow prompt (=>) for more information.

=> s ohkawa, s?/au
L6        1169 OHKAWA, S?/AU

=> s setoh, m?/au
L7          20 SETOH, M?/AU

=> s kakihana, m?/au
L8         709 KAKIHANA, M?/AU

=> s okura, m?/au
L9         293 OKURA, M?/AU

=> s l6 and l7 and l8 and l9
L10          1 L6 AND L7 AND L8 AND L9

=> d l10, ibib abs fhitstr, 1

L10  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2004 ACS on STN
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Full Text | Citing References

ACCESSION NUMBER: 1998:806634 CAPLUS
DOCUMENT NUMBER: 130:38285
TITLE: Benzofuran derivatives useful for suppressing neurodegeneration.
INVENTOR(S): **Ohkawa, Shigenori; Setoh, Masaki; Kakihana, Mitsuru; Okura, Masahiro**
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9855454	A2	19981210	WO 1998-JP2482	19980604
WO 9855454	A3	19990304		
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9875503	A1	19981221	AU 1998-75503	19980604
JP 11049765	A2	19990223	JP 1998-155709	19980604
EP 988289	A2	20000329	EP 1998-923128	19980604
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: JP 1997-148325 A 19970605
WO 1998-JP2482 W 19980604
OTHER SOURCE(S): MARPAT 130:38285
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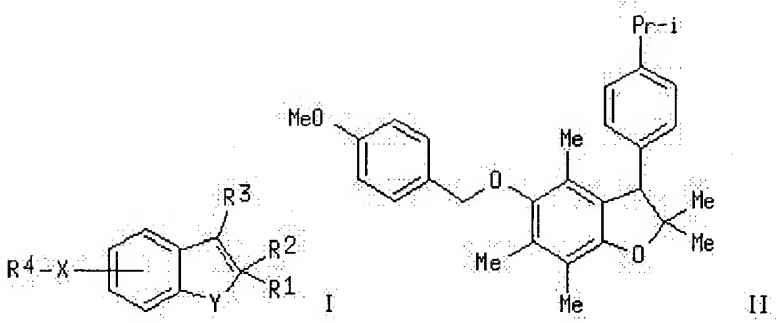

AB Title compds. I [R1, R2 = H, (un)substituted hydrocarbon group; or R1 and R2 form a 3- to 8-membered carbo- or heterocyclic ring which may be substituted; R3 = H, (un)substituted lower alkyl or arom. group; R4 = (un)substituted arom. or araliph. group, or acyl; X , Y = O or S which may be oxidized; benzene ring may be further substituted] and their salts are disclosed. The compds. suppress β-amyloid toxicity, and are thus useful as agents for treating of preventing neurodegenerative diseases such as Alzheimer's disease or Parkinsonism. Preps. of 33 compds. I and their intermediates are described. For instance, etherification of 3-(4-isopropylphenyl)-2,2,4,6,7-pentamethyl-2,3-dihydrobenzofuran-5-ol with 4-methoxybenzyl chloride using NaH in DMF gave 49% title compd. II. Seven example compds. gave 27.3-47.0% in vitro protection of human neuroblastoma SK-N-SH cells from β-amyloid neurotoxicity.

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=> d his

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     FILE 'REGISTRY' ENTERED AT 12:56:26 ON 16 DEC 2004
L1               STRUCTURE UPLOADED
L2             1 S L1
L3            24 S L1 FULL

     FILE 'HCAPLUS' ENTERED AT 12:59:53 ON 16 DEC 2004
L4             4 S L3

     FILE 'CAOLD' ENTERED AT 13:01:09 ON 16 DEC 2004
L5             0 S L3

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L6          1169 S OHKAWA, S?/AU
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L8           709 S KAKIHANA, M?/AU
L9           293 S OKURA, M?/AU
L10            1 S L6 AND L7 AND L8 AND L9

=> s l6 and l7
L11            6 L6 AND L7

=> s l11 and l8
L12            1 L11 AND L8

=> d l11, ibib abs fhitstr, 1-6

L11  ANSWER 1 OF 6  BIOSIS  COPYRIGHT (c) 2004 The Thomson Corporation.  on STN
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Full Text | Cited References

h eb c g cg b cg eb

ACCESSION NUMBER: 2003:53330 BIOSIS
DOCUMENT NUMBER: PREV200300053330
TITLE: Benzofuran derivatives, process for the preparation of the same and uses thereof.
AUTHOR(S): **Ohkawa, Shigenori** [Inventor, Reprint Author]; Arikawa, Yasuyoshi [Inventor]; Kato, Kouki [Inventor]; Okura, Masahiro [Inventor]; **Setoh, Masaki** [Inventor]
CORPORATE SOURCE: Takatsuki, Japan
ASSIGNEE: Takeda Chemical Industries, Ltd., Osaka, Japan
PATENT INFORMATION: US 6479536 November 12, 2002
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Nov 12 2002) Vol. 1264, No. 2. http://www.uspto.gov/web/menu/patdata.html. e-file. ISSN: 0098-1133 (ISSN print).
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 22 Jan 2003
Last Updated on STN: 22 Jan 2003

AB Compounds represented by the formula: ##STR1## wherein R1 and R2 are hydrogen atom, a hydrocarbon group or a heterocyclic group, or R1 and R2 may form, together with the adjacent carbon atom, a 3- to 8-membered homocyclic or heterocyclic ring, W indicates (i) a group represented by the formula: ##STR2## wherein ring B indicates a 5- to 7-membered ring, or (ii) a group represented by the formula: ##STR3## wherein R4 indicates (1) an aliphatic hydrocarbon group, which may be substituted with an aromatic group, or (2) an acyl group containing an aromatic group, R5 is hydrogen atom, a C1-6 alkyl, or an acyl group, provided that, when W is Wa, R3 is hydrogen atom, a hydrocarbon group or a heterocyclic group, when W is Wb, R3 indicates a C6-14 aryl group, or salts thereof or prodrugs thereof have an excellent action to inhibit neurodegeneration and the like as well as an excellent brain penetrability and are low in the toxicity, thereby being useful as prophylactic or therapeutic drugs for nerve degenerative diseases and the like.

L11 ANSWER 2 OF 6 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

Full Text | Cited References

ACCESSION NUMBER: 2002:447093 BIOSIS
DOCUMENT NUMBER: PREV200200447093
TITLE: Tricyclic compound, their production and use.
AUTHOR(S): **Ohkawa, Shigenori** [Inventor, Reprint author]; **Setoh, Masaki** [Inventor]; Terashita, Zen-ichi [Inventor]
CORPORATE SOURCE: Takatsuki, Japan
ASSIGNEE: Takeda Chemical Industries, Ltd., Osaka, Japan
PATENT INFORMATION: US 6417213 July 09, 2002
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (July 9, 2002) Vol. 1260, No. 2. http://www.uspto.gov/web/menu/patdata.html. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Aug 2002
Last Updated on STN: 21 Aug 2002

AB A compound of the formula ##STR1## wherein R1 is H or a substituent; m is 1-3; Ar is an aromatic group which may be substituted; X is a bond or a divalent straight-chain group having 1-6 atoms which may be substituted; Y is --S--, --O--, or --N(R2)-- (R2 is H or a substituent group), Z is --Ndbd or --C(R3)dbd (R3 is H or a hydrocarbon group), ring A is a benzene ring; ring B is a 5- to 7-membered ring which may be substituted, or a salt thereof is useful for eliciting a prostaglandin I2 receptor agonistic

h eb c g cg b cg eb

effect.

L11 ANSWER 3 OF 6 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

Full Text | Citing References

ACCESSION NUMBER: 2001:416973 BIOSIS
DOCUMENT NUMBER: PREV200100416973
TITLE: Tricyclic compounds, their production and use.
AUTHOR(S): **Ohkawa, Shigenori** [Inventor, Reprint author]; **Setoh, Masaki** [Inventor]; Terashita, Zen-ichi [Inventor]
CORPORATE SOURCE: Takatsuki, Japan
ASSIGNEE: Takeda Chemical Industries, Ltd., Osaka, Japan
PATENT INFORMATION: US 6248766 June 19, 2001
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (June 19, 2001) Vol. 1247, No. 3. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 29 Aug 2001
Last Updated on STN: 22 Feb 2002

AB A compound of the formula: ##STR1## wherein R1 is H or a substituent; m is 1-3; Ar is an aromatic group which may be substituted; X is a bond or a divalent straight-chain group having 1-6 atoms which may be substituted; Y is --S--, --O--, or --N(R2 -- (R2 is H or a substituent group), Z is --Ndbd or --C(R3)dbd (R3 is H or a hydrocarbon group), ring A is a benzene ring; ring B is a 5- to 7-membered ring which may be substituted, or a salt thereof is useful for eliciting a prostaglandin I2 receptor agonistic effect.

L11 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2000:401810 CAPLUS
DOCUMENT NUMBER: 133:43436
TITLE: Preparation of benzofuran derivatives as inhibitors and preventives for neurodegeneration
INVENTOR(S): **Ohkawa, Shigenori**; Arikawa, Yasuyoshi; Kato, Kouki; Okura, Masahiro; **Setoh, Masaki**
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 247 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000034262	A1	20000615	WO 1999-JP6764	19991202
W: AE, AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CR, CU, CZ, DM, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2352786	AA	20000615	CA 1999-2352786	19991202
EP 1136477	A1	20010926	EP 1999-973289	19991202
EP 1136477	B1	20040310		

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

AT 261435	E	20040315	AT 1999-973289		19991202
ES 2213407	T3	20040816	ES 1999-973289		19991202
PT 1136477	T	20040831	PT 1999-973289		19991202
JP 2000226388	A2	20000815	JP 1999-344345		19991203
JP 3553442	B2	20040811			
JP 2002161088	A2	20020604	JP 2001-314027		19991203
NO 2001002726	A	20010731	NO 2001-2726		20010601
US 6479536	B1	20021112	US 2001-857293		20010601
US 2002160996	A1	20021031	US 2002-120102		20020411
PRIORITY APPLN. INFO.:			JP 1998-345355	A	19981204
			JP 1998-345365	A	19981204
			WO 1999-JP6764	W	19991202
			JP 1999-344345	A3	19991203
			US 2001-857293	A3	20010601

OTHER SOURCE(S): MARPAT 133:43436

GI For diagram(s), see printed CA Issue.

AB Compds. represented by general formula (I), salts of the same, or prodrugs of both [wherein R1 and R2 are each hydrogen, hydrocarbyl or a heterocyclic group, or alternatively R1 and R2 together with the carbon atom adjacent thereto may form a three- to eight-membered homo- or heterocyclic ring; W is (i) a group represented by general formula Q: [wherein B is a five- to seven-membered ring], or (ii) a group represented by general formula R4R5N [wherein R4 is (1) aliph. hydrocarbyl substituted with an arom. group or (2) acyl bearing an arom. group; and R5 is hydrogen, C1-6 alkyl or acyl]; and when W is Q, R3 is hydrogen, hydrocarbyl or a heterocyclic group, whereas when W is R4R5N, R3 is C6-14 aryl] are prepd. These compds. exhibit excellent effects of inhibiting nerve degeneration and toxicity of β-amyloid and excellent activity like nerve nutritional factor and possess intracerebral transmigration properties, and low toxicity, thus being useful as preventive and therapeutic agents for nerve degeneration diseases such as Alzheimer's disease and Parkinson's disease. Thus, a mixt. of 2,2,4,6,7-pentamethyl-3-(4-methylphenyl)-2,3-dihydro-1-benzofuran-5-amine (prepn. given), 1,2-bis(chloromethyl)-4,5-dimethoxybenzene, Na2CO3, and tetrabutylammonium iodide in THF was refluxed for 11 h to give 16% 5,6-dimethoxy-2-[2,2,4,6,7-pentamethyl-3-(4-methylphenyl)-2,3-dihydro-1-benzofuran-5-yl]isoindoline (II). II in vitro showed 28.2% cytoprotective activity against LY-294002-induced cytotoxicity in SK-N-SH cells. Pharmaceutical formulations contg. I were also prepd.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1998:806634 CAPLUS
DOCUMENT NUMBER: 130:38285
TITLE: Benzofuran derivatives useful for suppressing neurodegeneration.
INVENTOR(S): **Ohkawa, Shigenori; Setoh, Masaki;** Kakihana, Mitsuru; Okura, Masahiro
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

h eb c g cg b cg eb

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9855454	A2	19981210	WO 1998-JP2482	19980604
WO 9855454	A3	19990304		
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9875503	A1	19981221	AU 1998-75503	19980604
JP 11049765	A2	19990223	JP 1998-155709	19980604
EP 988289	A2	20000329	EP 1998-923128	19980604
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			JP 1997-148325	A 19970605
			WO 1998-JP2482	W 19980604

OTHER SOURCE(S): MARPAT 130:38285

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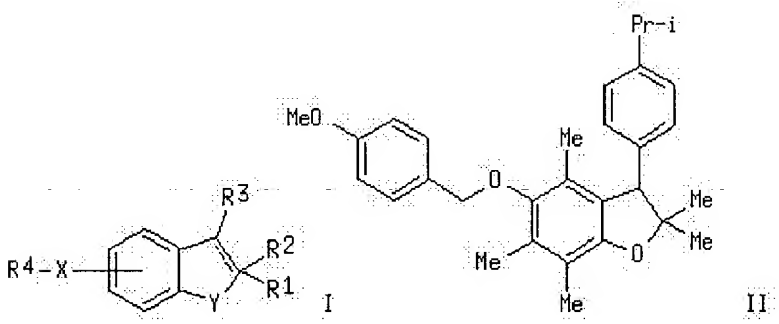


AB Title compds. I [R1, R2 = H, (un)substituted hydrocarbon group; or R1 and R2 form a 3- to 8-membered carbo- or heterocyclic ring which may be substituted; R3 = H, (un)substituted lower alkyl or arom. group; R4 = (un)substituted arom. or araliph. group, or acyl; X , Y = O or S which may be oxidized; benzene ring may be further substituted] and their salts are disclosed. The compds. suppress β-amyloid toxicity, and are thus useful as agents for treating of preventing neurodegenerative diseases such as Alzheimer's disease or Parkinsonism. Prepns. of 33 compds. I and their intermediates are described. For instance, etherification of 3-(4-isopropylphenyl)-2,2,4,6,7-pentamethyl-2,3-dihydrobenzofuran-5-ol with 4-methoxybenzyl chloride using NaH in DMF gave 49% title compd. II. Seven example compds. gave 27.3-47.0% in vitro protection of human neuroblastoma SK-N-SH cells from β-amyloid neurotoxicity.

L11 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text | CAPLUS References

ACCESSION NUMBER: 1998:208535 CAPLUS
DOCUMENT NUMBER: 128:257432
TITLE: Preparation of tricyclic compounds as prostaglandin I2 receptor agonists
INVENTOR(S): **Ohkawa, Shigenori**; **Setoh, Masaki**; Terashita, Zen-ichi
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 151 pp.
CODEN: PIXXD2

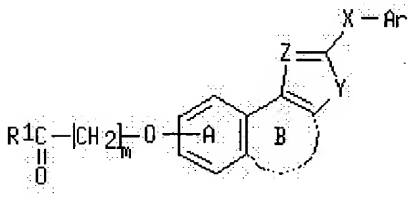
h eb c g cg b cg eb

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9813356	A1	19980402	WO 1997-JP3384	19970924
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
TW 416953	B	20010101	TW 1997-86113705	19970920
CA 2264641	AA	19980402	CA 1997-2264641	19970924
AU 9743973	A1	19980417	AU 1997-43973	19970924
JP 10152480	A2	19980609	JP 1997-257408	19970924
EP 929534	A1	19990721	EP 1997-942196	19970924
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6248766	B1	20010619	US 1999-254446	19990309
US 2002006944	A1	20020117	US 2001-800988	20010307
US 6417213	B2	20020709		

PRIORITY APPLN. INFO.:	JP 1996-252912	A	19960925
	WO 1997-JP3384	W	19970924
	US 1999-254446	A3	19990309

OTHER SOURCE(S): MARPAT 128:257432
GI



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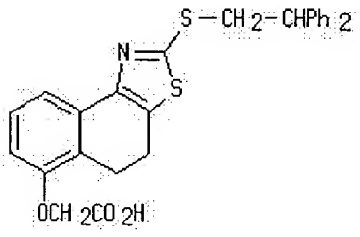

II

AB The title compds. [I; R1 = H, a substituent; m = 1-3; Ar = (un)substituted arom. group; X = a bond, (un)substituted divalent straight-chain group having 1-6 atoms; Y = S, O, N(R2) (R2 = H, a substituent); Z = N, C(R3) (R3 = H, a hydrocarbon); ring A = a benzene ring; ring B = (un)substituted 5-7 membered ring], useful for eliciting a prostaglandin I2 receptor agonistic effect, inhibiting a platelet aggregation, and for the

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prophylaxis or treatment of transient ischemic attack, diabetic neuropathy, peripheral vascular diseases or ulcer, were prepd. and formulated. Thus, reaction of Et [(2-mercapto-4,5-dihydronaphtho[1,2-d]thiazol-6-yl)oxy]acetate with 2,2-diphenylethyl methanesulfonate in the presence of K2CO3 in DMF followed by hydrolysis the resulting Et {[2-(2,2-diphenylethyl)thio-4,5-dihydronaphtho[1,2-d]thiazol-6-yl]oxy}acetate with 1N NaOH afforded 61% II which showed IC50 of 0.024 μM against PGI2 receptor binding, and IC50 of 0.54 μM against platelet aggregation.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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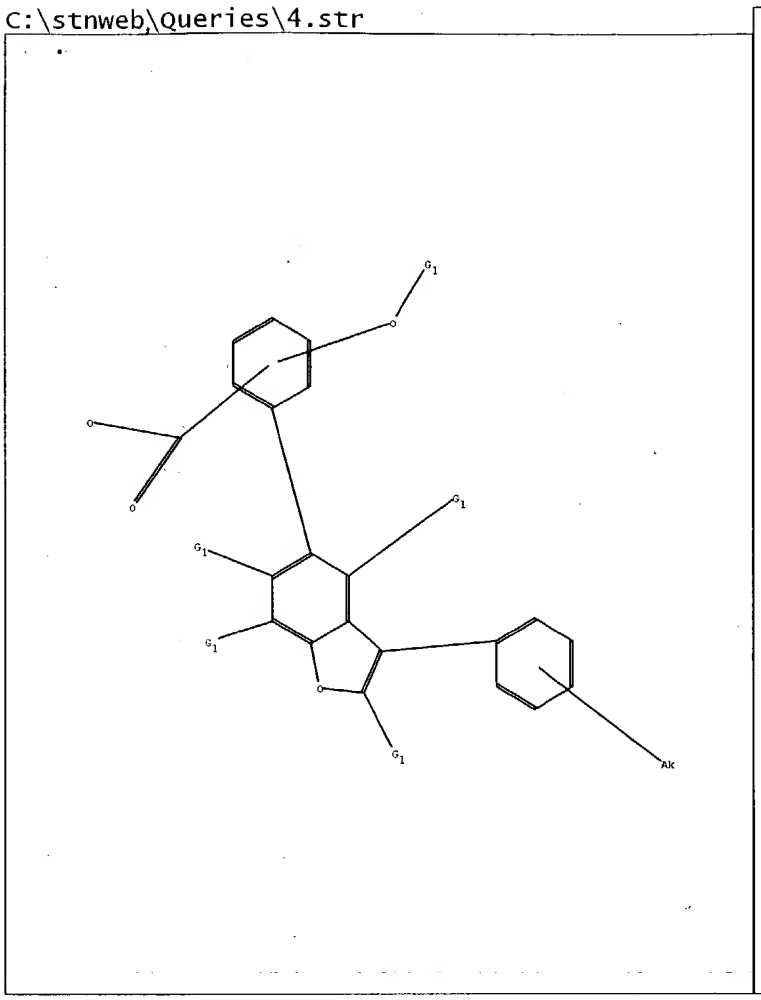

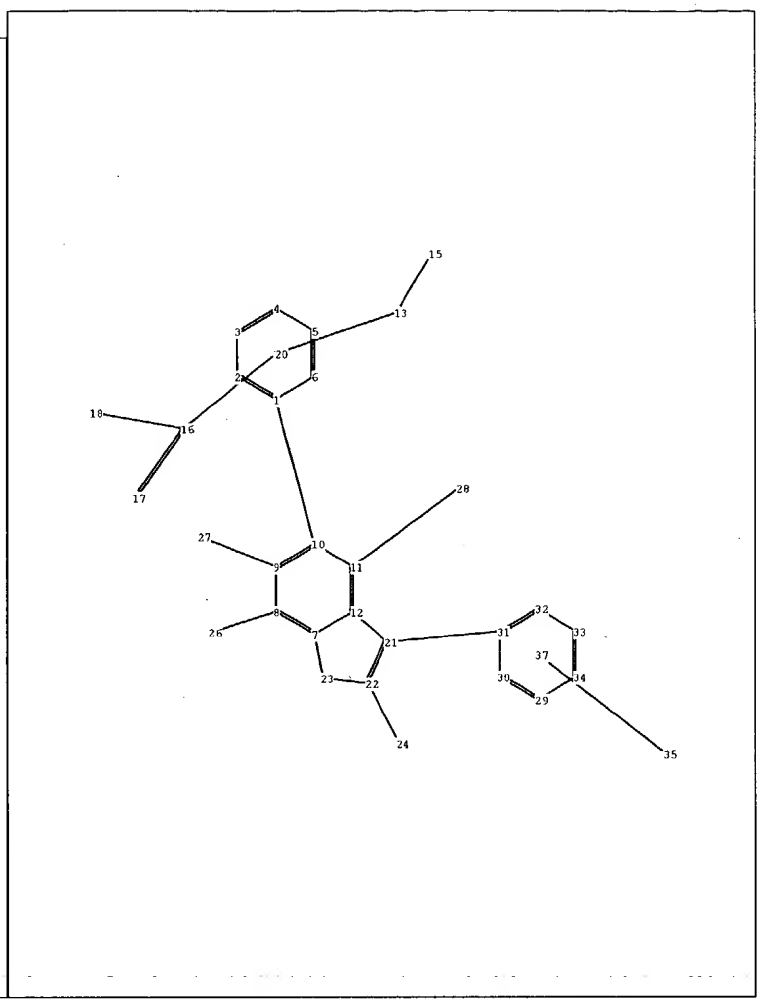

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13 15 16 17 18 24 26 27 28 35
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 21 22 23 29 30 31 32 33 34
chain bonds :
1-10 8-26 9-27 11-28 13-15 16-18 16-17 21-31 22-24
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 7-23 8-9 9-10 10-11 11-12 12-21 21-22
22-23 29-30 29-34 30-31 31-32 32-33 33-34
exact/norm bonds :
8-26 9-27 11-28 13-15 16-18 16-17 22-24
exact bonds :
1-10 7-23 12-21 21-22 21-31 22-23
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 29-30 29-34 30-31
31-32 32-33 33-34
isolated ring systems :
containing 1 : 7 : 29 :

G1:CH3,Et

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS 21:Atom
22:Atom 23:Atom 24:CLASS 26:CLASS 27:CLASS 28:CLASS 29:Atom 30:Atom 31:Atom
32:Atom 33:Atom 34:Atom 35:CLASS 37:CLASS

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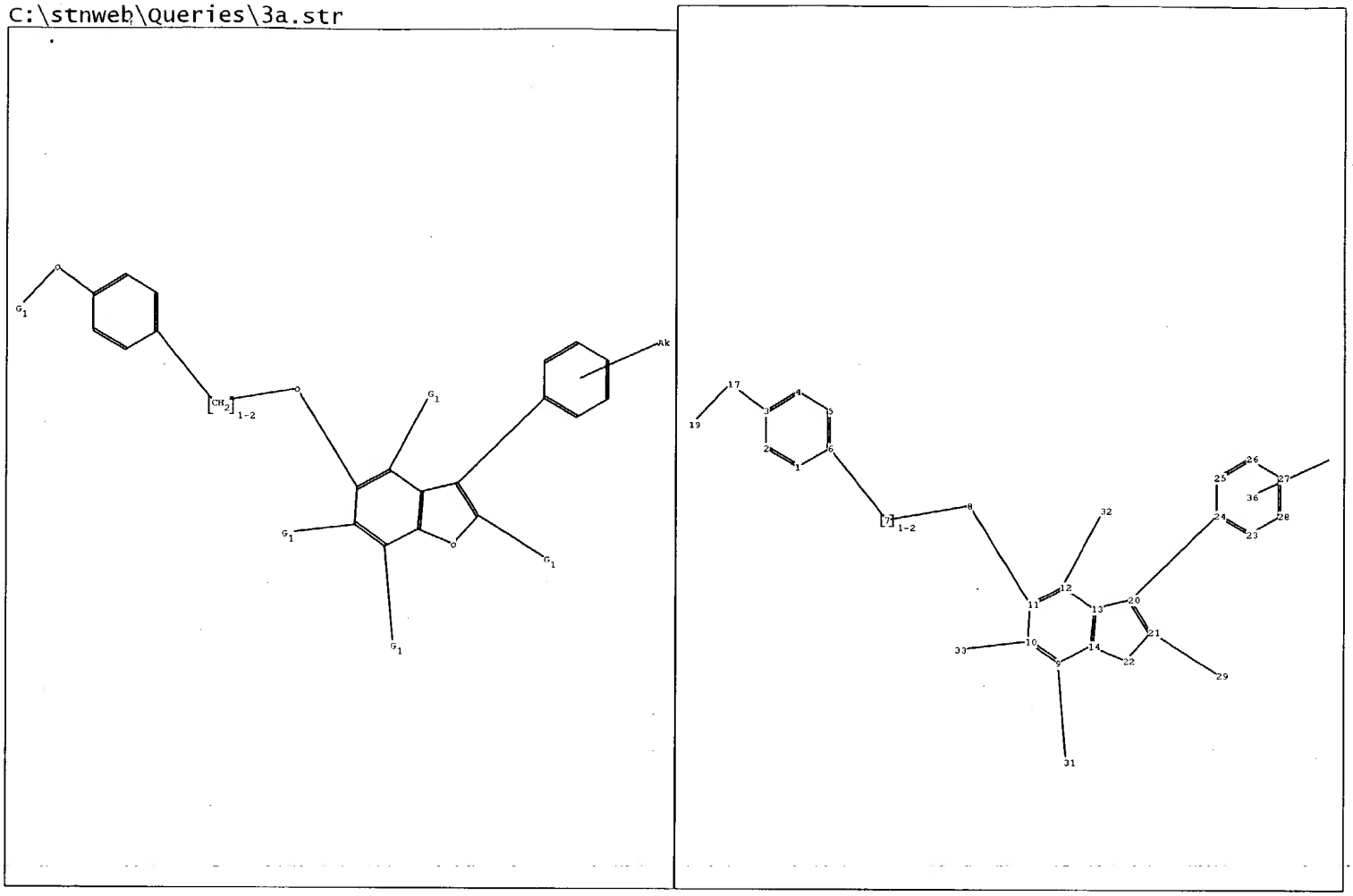

chain nodes :
7 8 17 19 29 31 32 33 35
ring nodes :
1 2 3 4 5 6 9 10 11 12 13 14 20 21 22 23 24 25 26 27 28
chain bonds :
3-17 6-7 7-8 8-11 9-31 10-33 12-32 17-19 20-24 21-29
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-14 10-11 11-12 12-13 13-14 13-20 14-22 20-21
21-22 23-24 23-28 24-25 25-26 26-27 27-28
exact/norm bonds :
3-17 8-11 9-31 10-33 12-32 17-19 21-29
exact bonds :
6-7 7-8 13-20 14-22 20-21 20-24 21-22
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-14 10-11 11-12 12-13 13-14 23-24 23-28 24-25
25-26 26-27 27-28
isolated ring systems :
containing 1 : 9 : 23 :

G1:CH3,Et

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 17:CLASS 19:CLASS 20:Atom 21:Atom 22:Atom
23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:CLASS 31:CLASS 32:CLASS
33:CLASS 35:CLASS 36:CLASS

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NEWS 5	NOV 18	Current-awareness alerts, saved answer sets, and current search transcripts to be affected by CERAB, COMPUAB, ELCOM, and SOLIDSTATE reloads
NEWS 6	NOV 30	PHAR reloaded with additional data
NEWS 7	DEC 01	LISA now available on STN
NEWS 8	DEC 09	12 databases to be removed from STN on December 31, 2004
NEWS 9	DEC 15	MEDLINE update schedule for December 2004

NEWS EXPRESS	OCTOBER 29 CURRENT WINDOWS VERSION IS V7.01A, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
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NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 12:32:19 ON 16 DEC 2004

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 12:32:24 ON 16 DEC 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

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DICTIONARY FILE UPDATES: 14 DEC 2004 HIGHEST RN 797749-23-6

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h eb c g cg b cg eb

```
Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
L1      STRUCTURE UPLOADED

=> s l1
SAMPLE SEARCH INITIATED 12:36:27 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      1 TO ITERATE

100.0% PROCESSED       1 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            1 TO       80
PROJECTED ANSWERS:               0 TO        0

L2            0 SEA SSS SAM L1

=> s l1 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 12:36:31 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     75 TO ITERATE

100.0% PROCESSED      75 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

L3            0 SEA SSS FUL L1

=>
L4      STRUCTURE UPLOADED

=> d l4
L4 HAS NO ANSWERS
L4              STR

=> s l4
SAMPLE SEARCH INITIATED 12:41:47 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      1 TO ITERATE

100.0% PROCESSED       1 ITERATIONS                                1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            1 TO       80
PROJECTED ANSWERS:               1 TO       80

L5            1 SEA SSS SAM L4

=> s l4 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 12:41:51 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      4 TO ITERATE
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h eb c g cg b cg eb

100.0% PROCESSED 4 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.02

L6 1 SEA SSS FUL L4

=> file hcaplus
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	316.72	316.93

FILE 'HCAPLUS' ENTERED AT 12:41:56 ON 16 DEC 2004
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FILE COVERS 1907 - 16 Dec 2004 VOL 141 ISS 25
FILE LAST UPDATED: 15 Dec 2004 (20041215/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L7 3 L6

=> d l7, ibib abs fhitstr, 1-3

L7 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Other References

ACCESSION NUMBER: 2003:719300 HCAPLUS
DOCUMENT NUMBER: 139:240389
TITLE: Antidepressant
INVENTOR(S): Ohkawa, Shigenori; Miyamoto, Masaomi
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003074046	A1	20030912	WO 2003-JP2293	20030228

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,

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PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

JP 2004083556	A2	20040318	JP 2003-52503	20030228
EP 1481679	A1	20041201	EP 2003-707169	20030228

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRIORITY APPLN. INFO.:	JP 2002-55771	A	20020301
	JP 2002-195434	A	20020704
	WO 2003-JP2293	W	20030228

OTHER SOURCE(S): MARPAT 139:240389
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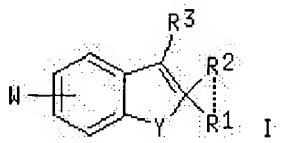

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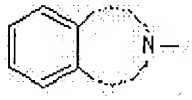
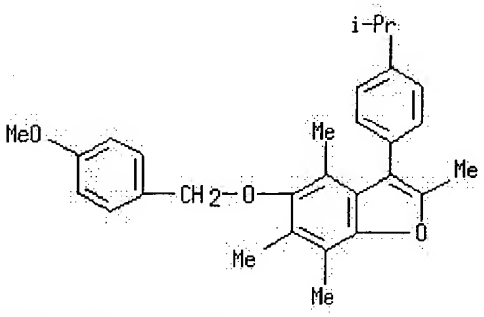


II

AB A PKB (Akt) activator contg. a compd. represented by the formula (I) [wherein R1 and R2 each represents hydrogen, a hydrocarbon group, or a heterocyclic group or R1 and R2 form a ring in cooperation with the adjacent carbon atom; R3 represents hydrogen, a hydrocarbon group, or a heterocyclic group; W represents a group represented by the formula (II) (-N(R4)(R5)) or (-XR4c) (wherein ring A represents an optionally substituted benzene ring; ring B represents an optionally substituted 5- to 7-membered nitrogenous heterocycle; R4 represents either an arom.-group-substituted aliph. hydrocarbon group which may have other substituent(s) or an acyl contg. an arom. group; R5 represents hydrogen, C1-6 alkyl, or acyl; R4c represents an arom. group, aliph. hydrocarbon group, or acyl; and X represents oxygen or sulfur); Y represents oxygen, sulfur, or NH; and ring C represents an optionally substituted benzene ring], a salt of the compd., or a prodrug of either. Also provided is a use of the activator in or as a preventive/therapeutic agent for depressive psychoses, anxiety disorders, affective psychoses, or PTSD.

IT **216989-41-2**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(benzofuran analogs as protein kinase B activators and antidepressants)

RN 216989-41-2 HCAPLUS
CN Benzofuran, 5-[(4-methoxyphenyl)methoxy]-2,4,6,7-tetramethyl-3-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

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RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2002:275980 HCAPLUS
DOCUMENT NUMBER: 136:309840
TITLE: Preparation of heterocyclic compounds as promoters for the proliferation and differentiation of stem cells and neuron precursor cells
INVENTOR(S): Okawa, Shigenori; Miyamoto, Masaomi; Okura, Masahiro
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 182 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002028850	A1	20020411	WO 2001-JP8739	20011004
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001092350	A5	20020415	AU 2001-92350	20011004
JP 2002348239	A2	20021204	JP 2001-308530	20011004
CA 2424870	AA	20030404	CA 2001-2424870	20011004
EP 1323716	A1	20030702	EP 2001-972687	20011004
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US 2004034049	A1	20040219	US 2003-398278	20030401
PRIORITY APPLN. INFO.:			JP 2000-306801 A	20001005
			WO 2001-JP8739 W	20011004

OTHER SOURCE(S): MARPAT 136:309840
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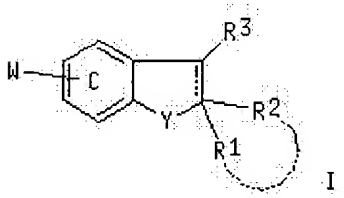

I

AB The title compds. I [R1 and R2 are each H, a hydrocarbon group, a heterocyclic group, or R1 and R2 together with the carbon atom adjacent thereto may form a ring; R3 is H, a hydrocarbon group, or a heterocyclic group; W is R4R5N, etc.; R4 is acyl which is substituted with an arom. group and addnl. bears an optionally substituted aliph. hydrocarbon group or an arom. group; R5 is H, C1-6 alkyl, or acyl; Y is O, S, or NH; and

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ring C is an optionally substituted benzene ring] are prepd. Three compds. of this invention at 1 μM gave 344% to 478% promotion of neuron generation. Formulations are given.

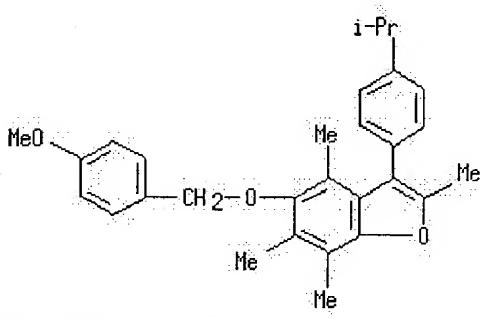
IT **216989-41-2P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclic compds. as promoters for proliferation and differentiation of stem cells and neuron precursor cells)

RN 216989-41-2 HCAPLUS

CN Benzofuran, 5-[(4-methoxyphenyl)methoxy]-2,4,6,7-tetramethyl-3-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1998:806634 HCAPLUS
DOCUMENT NUMBER: 130:38285
TITLE: Benzofuran derivatives useful for suppressing neurodegeneration.
INVENTOR(S): Ohkawa, Shigenori; Setoh, Masaki; Kakihana, Mitsuru; Okura, Masahiro
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9855454	A2	19981210	WO 1998-JP2482	19980604
WO 9855454	A3	19990304		
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9875503	A1	19981221	AU 1998-75503	19980604
JP 11049765	A2	19990223	JP 1998-155709	19980604
EP 988289	A2	20000329	EP 1998-923128	19980604
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

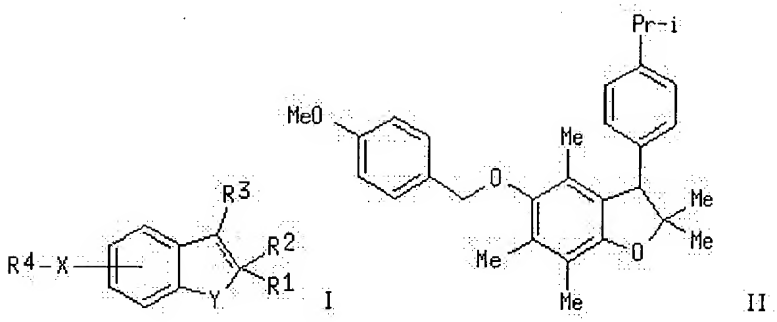
h eb c g cg b cg eb

IE, FI

PRIORITY APPLN. INFO.: JP 1997-148325 A 19970605
WO 1998-JP2482 W 19980604

OTHER SOURCE(S): MARPAT 130:38285

GI

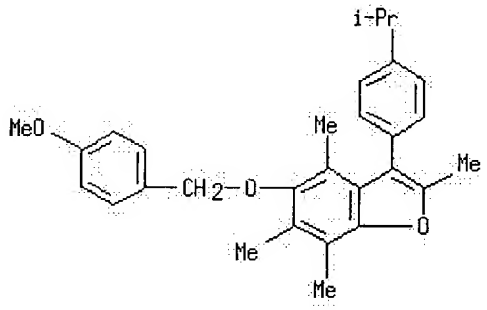


AB Title compds. I [R1, R2 = H, (un)substituted hydrocarbon group; or R1 and R2 form a 3- to 8-membered carbo- or heterocyclic ring which may be substituted; R3 = H, (un)substituted lower alkyl or arom. group; R4 = (un)substituted arom. or araliph. group, or acyl; X , Y = O or S which may be oxidized; benzene ring may be further substituted] and their salts are disclosed. The compds. suppress β-amyloid toxicity, and are thus useful as agents for treating of preventing neurodegenerative diseases such as Alzheimer's disease or Parkinsonism. Preps. of 33 compds. I and their intermediates are described. For instance, etherification of 3-(4-isopropylphenyl)-2,2,4,6,7-pentamethyl-2,3-dihydrobenzofuran-5-ol with 4-methoxybenzyl chloride using NaH in DMF gave 49% title compd. II. Seven example compds. gave 27.3-47.0% in vitro protection of human neuroblastoma SK-N-SH cells from β-amyloid neurotoxicity.

IT **216989-41-2P**, 3-(4-Isopropylphenyl)-5-[(4-methoxybenzyl)oxy]-2,4,6,7-tetramethylbenzofuran
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(product; prepn. of benzofuran derivs. as agents for suppressing neurodegeneration)

RN 216989-41-2 HCAPLUS

CN Benzofuran, 5-[(4-methoxyphenyl)methoxy]-2,4,6,7-tetramethyl-3-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)



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